aortic rings by 218 ± 21 mg of developed force ($p<0.01$). De-endothelialized (*i.e.* endothelium was removed by gently rolling the aortic rings over a twisted stainless steel wire covered with cotton) aortic rings were contracted by only 33 ± 12 mg of developed force. Pretreatment with an endothelin EtA receptor antagonist, JKC-301 (Cyclo[D-Asp-Pro-D-IIe-Leu- D-Trp]), Sigma Biochemicals and Reagents, St. Louis, MO) (0.5 and 1 M), significantly diminished p-GlcNac-induced vasoconstriction by 57 to 61% ($p<0.01$).

IN THE CLAIMS:

A marked up version of the claims showing the amendments is attached hereto as Exhibit B. Matter that has been deleted from claims 1, 18, and 24 is indicated by brackets and matter that has been added to the claims is indicated by underlining.

Please amend the claims to read as follows:

1. A method for achieving at least a transient, localized, modulation of vascular structure and/or function, comprising:

topically administering to a patient in need of said modulation, a sufficient amount of material comprising semi-crystalline poly-β-1→4 N-acetylglucosamine polymers, wherein said administering induces at least a transient, localized physiological response selected from the group consisting of stimulation of endothelin-1 release, vasoconstriction, and reduction in blood flow out of a breached vessel,

whereby the patient experiences at least a transient, localized modulation of vascular structure and/or function.

18. A biodegradable, non-barrier-forming material comprising semi-crystalline poly-β-1→4 N-acetylglucosamine polymers comprising about 50 to about 150,000 N-acetylglucosamine monosaccharides covalently attached in a β-1→4 conformation, and having a molecular weight of about 10,000 daltons to about 30 million daltons.

24. A method for treating a patient having a vascular disorder, comprising:

topically administering to a patient in need of such treatment, a sufficient amount of material comprising semi-crystalline poly-β-1→4 N-acetylglucosamine polymers,

wherein said administering induces at least a transient, localized physiological response selected from the group consisting of stimulation of endothelin-1 release, vasoconstriction, and reduction in blood flow out of a breached vessel, whereby the patient experiences at least a transient, localized modulation of vascular structure and/or function,

whereby said administering ameliorates said vascular condition.

Please add the following new claims:

26. (New) The method of claim 1, wherein said polymers are substantially free of protein.

27. (New) The method of claim 1, wherein said polymers are substantially free of organic contaminants.

28. (New) The method of claim 1, wherein said polymers are substantially free of inorganic contaminants.

29. (New) The biodegradable, non-barrier forming material of claim 18, wherein said polymers are substantially free of protein.

30. (New) The biodegradable, non-barrier forming material of claim 18, wherein said polymers are substantially free of organic contaminants.

31. (New) The biodegradable, non-barrier forming material of claim 18, wherein said polymers are substantially free of inorganic contaminants.

32. (New) The method of claim 24, wherein said polymers are substantially free of protein.

33. (New) The method of claim 24, wherein said polymers are substantially free of organic contaminants.

34. (New) The method of claim 24, wherein said polymers are substantially free of inorganic contaminants.

35. (New) A pharmaceutical composition comprising a therapeutically effective amount of a biodegradable, non-barrier-forming material comprising semi-crystalline poly-β-1→4 N-acetylglucosamine polymers comprising about 50 to about 150,000 N-acetylglucosamine monosaccharides covalently attached in a β-1→4 conformation, and having a molecular weight of about 10,000 daltons to about 30 million daltons.

36. (New) The pharmaceutical composition of claim 34, wherein said polymers are substantially free of protein.

37. (New) The pharmaceutical composition of claim 34, wherein said polymers are substantially free of organic contaminants.

38. (New) The pharmaceutical composition of claim 34, wherein said polymers are substantially free of inorganic contaminants.